

REMARKS

Applicants thank the Examiner for the courtesy extended to Applicants' attorney during the interview held September 17, 2003, in the above-identified application. During the interview, Applicants' attorney explained the presently-claimed invention and why it is patentable over the applied prior art. The discussion is summarized and expanded upon below.

The present invention relates to a process for producing scratch-resistant coatings on the basis of radiation-curable coating compositions.

As described in the specification beginning at page 1, line 8, and as Applicants' counsel related at the above-referenced interview, the art has sought radiation-curable coating compositions that resist scratching and thus, do not lose their gloss, when cleaned, for example. Another invention, described in the paragraph bridging pages 2 and 3 of the specification, requires curing under inert gas conditions, or generally no more than 500 ppm of oxygen. The substantial exclusion of oxygen requires expensive technology.

The present invention overcomes the disadvantages of the prior art. As recited in Claim 1, the present invention is a process for producing a scratch-resistant coating, said process comprising: applying at least one UV-curable coating composition to at least one surface of an article to be coated, said coating composition comprising at least one polymer and/or oligomer P1 containing an average of at least one ethylenically unsaturated double bond per molecule, and curing said coating composition by exposure to UV radiation under an oxygen- containing protective gas which has an oxygen partial pressure in the range of from 0.5 to 18 kPa.

The rejection of Claims 1 and 4-7 under 35 U.S.C. § 102(b) as anticipated by JP63214375 (Masakazu et al) is respectfully traversed. As pointed out during the above-referenced interview, Masakazu et al requires an inert gas atmosphere containing less than

Application No. 10/049,646
Reply to Office Action of August 13, 2003

0.5 volume % of oxygen, and is thus similar to the above-discussed prior art. Masakazu et al neither discloses nor suggests a larger amount of oxygen. During the above-referenced interview, the Examiner agreed. Accordingly, it is respectfully requested that this rejection be withdrawn.

The rejections of Claims 1 and 3-9 under 35 U.S.C. § 102(b) as anticipated by, and of Claim 2 under 35 U.S.C. § 103(a) as unpatentable over, U.S. 4,170,663 (Hahn et al) are respectfully traversed. Hahn et al disclose a three-stage method for forming hard, mar-resistant and abrasion-resistant coatings of low gloss. The Examiner relies on the disclosure of the second stage therein, wherein, after a first stage in which a coating composition is exposed to ionizing radiation in an atmosphere containing a cure-inhibiting amount of oxygen, it is exposed to ultraviolet light in an atmosphere free of a cure inhibiting amount of oxygen. Hahn et al disclose that typically, the oxygen concentration during this second stage is in the range of from about 300 to about 5000 parts oxygen, preferably from about 500 to about 1,500 parts oxygen, per million parts atmosphere by volume (column 2, lines 36-42). Thus, Hahn et al actually teach away from the presently-recited oxygen partial pressure range. During the above-referenced interview, the Examiner agreed. Accordingly, it is respectfully requested that these rejections be withdrawn.

Applicants respectfully call the Examiner's attention to the Information Disclosure Statement (IDS) filed June 3, 2002. The Examiner is respectfully requested to initial the Form PTO 1449 submitted therewith, and include a copy thereof with the next Office communication.

Moreover, since the date of the IDS is before the date of the Office Action and thus technically was part of the Official file as of the Office Action date, Applicants respectfully request that should the Examiner determine that a new ground of rejection needs to be made in the next Office Action relying in whole or in part on any of the references cited in the IDS,

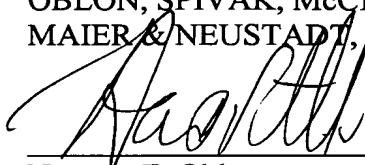
Application No. 10/049,646
Reply to Office Action of August 13, 2003

then said next Office Action not be made Final, even if the new rejection was necessitated by the present amendment to the claims.

All of the presently-pending claims in this application are now believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.



Norman F. Oblon
Attorney of Record
Registration No. 24,618

Harris A. Pitlick
Registration No. 38,779

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 08/03)
NFO/HAP/cja